

NERSC User Community Engagement



Kevin Gott & Rebecca Hartman-Baker
NUG Annual Meeting
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About the NERSC Community

~9,000 ANNUAL USERS FROM **~800** Institutions + National Labs



27%
Graduate
Students



17%
Postdoctoral
Fellows



14%
Staff
Scientists



11%
University
Faculty



7%
Undergraduate
Students



6%
Professional
Staff



59% Universities



29% DOE Labs



5% Other
Government Labs



3% Industry



1% Small
Businesses



<1% Private Labs

NERSC Community Engagement

NERSC's diverse users, PIs, vendors, & staff have many shared interests:



There are many opportunities for collaborations, interactions and learning experiences to be had across our community, but these are not currently happening.

NERSC wants to help make this and more happen, by **developing a User Community of Practice.**

Community Engagement

NERSC staff have taken dedicated steps to learn about initiating and managing broader scientific community engagement programs.

Center for Scientific Collaboration and Community Engagement Scientific Community Engagement Fundamentals



CSCCE TRAINING | CEF | GRADUATION POSTER

NERSC **Research Network Lead**
NERSC User Engagement Group Lead

Community overview
The National Energy Research Scientific Computing Center (NERSC) is a premier user facility for the scientific community. NERSC is the premier center of scientific computing at the Lawrence Berkeley National Laboratory (LBNL). NERSC is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community. NERSC is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community. NERSC is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community.

Community management
In the past month, one of the following skills were identified and an experiment was the first lesson.

Community participation
CSCCE's: **TRANSFORMING** **TRANSACTING** **TRANSFORMING**

Community membership
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Community programming
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Community champions
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AMReX **Epic Partner**

Community overview
The AMReX team is a community of scientists and engineers who are working together to develop and use the AMReX software. AMReX is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community. AMReX is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community. AMReX is a multi-disciplinary center for scientific computing, providing a wide range of services to the scientific community.

Community management
I expect managing the community to employ a wide range of skills. These skills can be broadly categorized into five size competencies: interpersonal, program management, program development, communication and technical. Each size competency can be further broken down into more specific skills.

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NERSC **Lead User**
NERSC Community Manager

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Community management
In the past month, this community manager used the following distribution of skills. This is expected to shift over time. Skills are broken into two categories: personal and technical.

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NERSC Community Engagement Plan

NERSC's goal: to create a User Community of Practice.

“By consciously fostering a community of practice, NERSC has the opportunity to encourage the pursuit of careers in HPC and computational science (especially for underrepresented / historically marginalized groups); shape the next generation of users, staff, and researchers; and positively impact the scientific community as a whole.”

Engagement is possible on a wide range of topics of mutual interest:

- Scientific Research Practices
- Technical Skill Development
- Career Development
- Leadership & Ambassador Roles
- Networking
- People Skills
- Diversity & Inclusion



Overview of Community of Practice Development Plan

Strategy	Engagement Types	Engagement Topics
<ul style="list-style-type: none">• Smaller, targeted groups• Cross-disciplinary & cross-project• Inclusive & safe• Empowering community to make decisions & lead• NERSC provides resources, expertise, guidance• Ultimately, spaces to learn, grow, do what the community wants/needs• Community input is key!	<ul style="list-style-type: none">• Working Groups• Mentoring Programs• Conferences• Conference Meet-ups• Mixers• Journal Club• Training Sessions• Hands-on Working Groups• Coffee meet-up	<p>Based on community needs; could include:</p> <ul style="list-style-type: none">• Technical:<ul style="list-style-type: none">○ CMake○ Fusion Energy○ Future of Science• Career & Networking:<ul style="list-style-type: none">○ Local NUG Chapters○ Non-technical training○ Job Fairs• NERSC Focused:<ul style="list-style-type: none">○ Tool design○ Ambassador program

First Step: Code of Conduct

Best practice for communities: implement a Code of Conduct

- Articulates community's values & principles
- Sets expectations for behavior within a community
- Empowers community members to handle conflicts & ethical challenges

New NERSC Code of Conduct:

- Articulates community values within context of NERSC, nothing unexpected
- Applies to entire community, including staff, users, vendors, speakers, etc.
- Will be signed by all NERSC account-holders in new allocation year, as part of Appropriate Use of NERSC Resources



Code of Conduct Content

- Promotes values of collaboration, kindness, & respect within NERSC user community
- Based on the Berkeley Lab Stewardship Values:
 - *Team Science:* We are all NERSC users, & leave scientific rivalries at the door
 - *Service:* We help each other & make the community better for everyone
 - *Trust:* We behave ethically & treat each other with honesty & respect
 - *Innovation:* We create a safe environment that welcomes all constructive input
 - *Respect:* We respect & value each other inherently as human beings
- Details resources for cases of misconduct
- Accompanied by FAQ with more info on NERSC's Code of Conduct implementation

Code of Conduct Implementation

- Anyone with a NERSC account will sign beginning in the new Allocation Year (mid-January, 2023)
- Resources for cases of misconduct are already available
 - We encourage you to speak up first, if you feel comfortable & safe
 - Reporting options already exist:
 - Berkeley Lab FAIR Office: <https://fair.lbl.gov>
 - Anonymous reporting options available
- Links to read NERSC Code of Conduct and FAQ:
 - Code of Conduct: <https://www.nersc.gov/users/nersc-code-of-conduct/>
 - Code of Conduct FAQ: <https://www.nersc.gov/users/nersc-code-of-conduct/nersc/>

Code of Conduct Acknowledgements

The NERSC Code of Conduct was created with input from many experts across Berkeley Lab & elsewhere:

- *HR*: Bill Cannan, Kevin Nichols
- *FAIR office*: Leti Ericson, Cheri Toney, Jon LeGaux
- *Legal*: Chief Laboratory Counsel Therese Leone
- *IDEA office*: Chief Diversity Officer Aditi Chakravarty
- *Lab Directorate*: Chief of Staff Margaret Dick
- *NERSC Management*: Sudip Dosanjh, Richard Gerber, Katie Antypas, Wahid Bhimji
- *Computing Sciences Communications*: Kathy Kincade, Margie Wylie
- *NERSC Staff*: Hannah Ross, Erik Palmer
- *DESI project*: Daniel Eisenstein, Michael Levi, Risa Weschler

Our Initial Community Engagement Plans:

Start with a focus on graduate students & postdocs (the plurality of users):

- Graduate students / postdocs share similar goals in common:
 - Learn new skills
 - Graduate / put things on resume
 - Get an awesome job
- Considering ideas such as: peer training events, peer mentorship program, & early career research symposium.

Future ideas will come from you!



To make this happen, we need you!

Planning targeted outreach to users.

Send in a ticket with your ideas to help.nersc.gov!

Contact us directly or put your name and email in the chat and we'll be sure to keep you in the loop.